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Vol. 10, No. 2, 1944

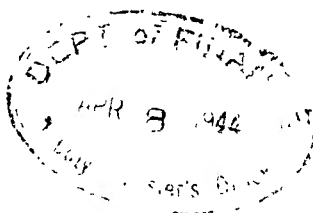
The Midcontinent and the Peace

The Interests of Western Canadian Agriculture in the Peace Settlements

Number 2

A JOINT REPORT PREPARED UNDER THE AUSPICES OF
THE UNIVERSITY OF MANITOBA AND THE UNIVERSITY
OF MINNESOTA IN RESPONSE TO A REQUEST FROM

*The Premier of the Province of Manitoba and
The Governor of the State of Minnesota*



THE UNIVERSITY OF MANITOBA AND THE UNIVERSITY OF MINNESOTA
IN COÖPERATION WITH THE UNIVERSITY OF MINNESOTA PRESS
MINNEAPOLIS, 1944

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UNIVERSITY OF MINNESOTA PRESS, MINNEAPOLIS

Printed in the U.S.A.



Letter Introducing the Preliminary Report

August 1, 1943

The Honorable Stuart S. Garson, Premier
Parliament Building
Winnipeg, Manitoba

The Honorable Edward J. Thye, Governor
The Capitol
St. Paul, Minnesota

Gentlemen:

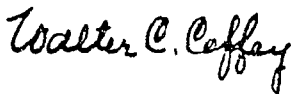
In separate letters in late 1941, the former Premier of the Province of Manitoba, the Honorable John Bracken, and the former Governor of the State of Minnesota, the Honorable Harold E. Stassen, wrote to each of us requesting our respective universities cooperatively to undertake the task of inquiry into the problems that will face the Prairie Provinces of Canada and the Central Northwest States of the United States when the present great world conflict is ended. The request was also made that consideration be given to policies that would be desirable in the future collaboration which the peoples of Canada and the United States will wish to continue to secure a sound and lasting peace.

It is in response to these requests that this preliminary report, entitled "The Midcontinent and the Peace," has been prepared by the members of the staffs of our universities. It is submitted at this time in order that principles may be advanced for thoughtful discussion and consideration, by means of which alone a sound and informed public opinion can be secured. In this work the Universities of Manitoba and Minnesota take pleasure in service to the people of the Prairie Provinces and Central Northwest United States.

Yours very truly,



Sidney E. Smith, President
The University of Manitoba



Walter C. Coffey, President
The University of Minnesota

PREFACE

The present publication follows an earlier preliminary report entitled *The Midcontinent and the Peace: The Interests of Western Canada and Central Northwest United States in the Peace Settlements*, published in August 1943. The earlier report embraced a study of the international economic position of the Prairie Provinces and the Central Northwest United States in relation to their two national economies and the rest of the world. In order that the relation of the present report to the earlier one may be better understood, a review of the recommendations of the first report is given here.*

1. An inquiry was made into "the dependence of international trade upon domestic prosperity" (Section I), which revealed that domestic economic measures have "resoundingly important effects upon the external world." Therefore, the first recommendation of the report was that measures to promote strong health in the domestic economies of Canada and the United States should be a foremost objective of each of our two countries if we are to act in the interests of helping the economies of the rest of the world when the war is ended. Without such strength at home we are not free to act effectively abroad.

The record shows that when our internal economies are functioning vigorously we require much larger amounts of goods — both raw materials and finished goods — from the rest of the world. These goods then are imported in much larger amounts, irrespective of whether they are or are not subject to tariffs. Consequently, although recommendation of the measures needed to secure vigorously functioning domestic economies does not fall within the area of the report, such measures must be emphasized as the most fundamental prerequisite to any success in restoring a strong international economic fabric. Achieving the latter purpose will help, of course, to reinforce the former — that is, having domestic prosperity.

2. The preliminary report next considered "the international trade position of Canada and the United States" (Section II). In this section it was shown that were Canada and the United States to increase to

* The reader is referred to the introductory report for a statement of the conditions under which it was issued. It is sufficient here to indicate that the Manitoba-Minnesota Project has operated through two committees (to which reference is made in the earlier report), but that the responsibility for the way in which both reports are stated rests with the men whose names are appended to this introduction.

extreme and perhaps impracticable limits the trade each carries on with the other, there would remain for export to the rest of the world a vast amount of wheat and a very large value of automobiles for both our countries. In addition, as is well known, Canada would also wish to export another grain, barley, and similarly the United States would want to export corn, although the latter export is almost wholly marketed in the form of pork and lard. Two recommendations were next made, and they were stated in terms of wheat and automobiles (3 and 4 below).

3. Perhaps the most important recommendation in the report was that contained in the short study of "Canada, the United States, and the postwar reorganization of Western European agriculture" (Section III).

What was recommended in that section was that firm and abiding arrangements should be made for a much larger postwar import, by the countries of Western Europe, of Canada's barley and wheat and the wheat, pork, and lard of the United States. Some of the reasons given for making an agreement to achieve this end were the fact that from 1931 to 1939 the price of home-grown wheat, for example, in the countries of Western Europe (France, Austria, Czechoslovakia, Germany, and Italy) averaged fully twice the price at which the great wheat surplus-producing nations (Argentina, Australia, Canada, and the United States) were offering to sell their wheat, their barley, and their hogs and lard produced from their corn.

In fact, the report pointed out that because of the sheltering protectionism and drive for food self-sufficiency in Western Europe, the grain products of the great export countries had been barred from most consumers in Europe. As a result our surplus supplies were dammed up at home. In the United States, for example, no less than \$3,859,000,000 was paid to American agriculture (1933 to 1940), a large part of which consisted of benefit payments to wheat, corn, and hog growers because of the depression in prices they then received for their products. In fact, in the last of these years the annual payments exceeded one billion dollars. The report showed also that in Germany, France, and Italy more than one and a half billion dollars was being paid by consumers annually in the 1930's for wheat in all three countries combined and for barley and pork in Germany, above what would have had to be paid had these products been obtained at the prevailing prices in the surplus-producing countries.

Clearly, whatever may be the criticisms of the commercial policies of Canada and the United States, similar criticisms could be made of

Western European policies, with the reinforcing point in the case of much of Europe that commercial and agricultural policies there most adversely affected consumption of wheat, an important and expensive item in a satisfactory diet.

For these reasons it was proposed that the peace settlement should envisage cutting the Gordian knot which has been strangling trade in these primary foods so efficiently produced in Canada and the United States and, tested by price, so inefficiently produced in the countries of Western Europe. A period of fifteen years was suggested for this purpose. In that period of time, it was believed, European agriculture could be reorganized to produce for itself products for which it was better fitted, such as meat, milk, vegetables, eggs, butter, and fruits. Europe is better able to produce many of these items than to produce cereals. As they make up a large part of the "protective foods" in any satisfactory diet, Europe will need more of them. Its agriculture profitably could produce them, and its cheaper purchases of wheat, barley, pork, and lard could save large sums for European consumers, thus helping them to buy these additional products in the specified larger amounts.

The report contained an expression of the view that, with such markets won for Canadian and American agriculture, the people of our two areas would assist in the reorganization of European agriculture and in securing reductions in our tariffs that would permit Europe to sell the increased amounts of her manufactured and handicraft products that would be required to pay for her larger agricultural imports.

4. In the preliminary report a proposal was made for the rearrangement of the automobile industry of Canada and the United States after the war (Section IV). Because the automobile industries of our two countries have been so completely converted to war, the immediate postwar period offers an unusual opportunity for the rearrangement of this industry in the interest of greater employment of workers and lowered prices for its products to consumers.

What was proposed was that the joint managements of the industry undertake so to reorganize it at the end of the war that automobiles could be produced as efficiently in Canada as in the United States, and would therefore sell at \$250 less in Canada than would otherwise be possible. At the same time assurances were to be given to maintain past normal levels of employment in Canada. Consequently, great gains would be secured with such a rearrangement, in which Canada might specialize in one or two models or in certain important parts, with their industry's products flowing freely into the

United States and the United States enjoying free entry of its automobile products into Canada. The Canadian price could be very much lowered, as indicated, and there could be a small reduction in the price of American cars. That price reduction, though small, would apply to a very much larger number of cars. In addition, past normal levels of employment would be assured for Canada, and both countries could gain in employment because of the larger market developed for them both at home and abroad as a result of the lowered cost of production.

5. In the final section of the earlier report further integration of the Canadian and American economies in relation to the Prairie Provinces and Central Northwest United States was recommended (Section V). In that section the production-cooperation of the two economies in wartime was reviewed briefly, and it was recommended that further means to increase this whole-hearted cooperation after the war be explored.

The report by Professor Waines which follows has been prepared in order that people of both our countries may obtain a clearer view of the agricultural situation in Canada. That they should do so is extremely important, for were wheat — or cotton for that matter — to be as important a crop in the United States as wheat is in Canada, either would have to be worth, in round figures, not one billion dollars, as has frequently been the case for each in the past, but more nearly ten billion dollars. Canada is vitally interested in wheat. As a good neighbor, the United States is equally interested in understanding this great problem of her free neighbor.

ARTHUR R. UPGREN, *Director of Project*
WILLIAM J. WAINES, *Associate Director*

January 1944

I

AGRICULTURE IN THE PRAIRIE PROVINCES IN WARTIME, 1939-42

In the last war Canada's nonmilitary contribution to the Allied cause was mainly the provision of foodstuffs and agricultural raw materials. In this war Canada has assumed a much greater importance as a supplier of the products of industry, and it is probably not too much to say that, as during the last war Canada achieved agricultural maturity, during the present conflict she will reach industrial maturity. Nevertheless, there are important changes occurring in the agricultural activities of this country. It is these changes, particularly as they affect the Prairie Provinces, that are to be considered in this section.

First, it may be instructive to compare briefly the situation in the Prairie Provinces in 1939¹ with that before the outbreak of war in 1914. The following table (Table 1) of principal agricultural statistics will serve for the purposes of this comparison. The year 1911 is used for comparative purposes because the last census before the outbreak of war was taken in that year.

Comment on the extent of agricultural development in the period between the beginnings of the two wars is scarcely necessary. This development has been great all along the line but is most marked in the area and number of occupied farms and in the extension of the area devoted to field crops. It might be pointed out in passing that a considerable part of this development, especially in wheat acreage, occurred during the last war. However, on the eve of the second world war, Canada, like many other raw material producing areas, was faced with a problem of actual or potential surpluses. This surplus was particularly marked in wheat. Many Canadians, without adequate consideration of the actual position, assumed at first that as the war progressed Europe would have to turn again to the North American continent for her supplies of wheat and that very soon the surplus would disappear. The wheat surplus did not disappear, and in the early months of the war there was no considerable increase in the demands for other Canadian agricultural products.

By the end of 1941, however, the situation had changed. Increased

¹ We believe that 1939 is a satisfactory starting point, since the war had no appreciable effect on Western agriculture during that year, except possibly a slight effect on prices.

TABLE 1 PRINCIPAL AGRICULTURAL STATISTICS FOR THE PRAIRIE PROVINCES, 1911 AND 1939
(In thousands.)

	1911 *	1939
Occupied farms		
Number	109	290 † (1936)
Acres	57,043	113,113 † (1936)
Improved farm land (acres)		
Total	22,970	60,857 † (1936)
Field crops ...	17,077	41,553 †
Wheat	9,990	25,813 †
Barley	886	3,607 †
Oats	4,861	8,927 †
Fodder crops.	93	2,308 †
Livestock on farms (no.)		
Horses	1,195	1,774 §
Milk cows	484	1,285 §
Other cattle.	1,325	2,009 §
Sheep	585	1,400 §
Hogs	712	1,774 §
Poultry	8,432	23,185 §
Dairy Products (lbs.)		
Milk	1,732,454	4,712,806 §
Dairy butter.....	30,680	50,760 §
Farm-made cheese	496	593 §

* Census of Canada (Fifth, 1911).

† Census of Prairie Provinces (1936).

‡ *Quarterly Bulletin of Agricultural Statistics* (January-March 1942).

§ *Quarterly Bulletin of Agricultural Statistics* (January-March 1941).

demands from Great Britain for bacon, cheese, eggs, flax fiber, and flaxseed stimulated the production of these products. Improved domestic demand, shifting from the consumption of pork to beef, and favorable prices in the United States accounted for an improvement in prices and production of beef cattle in 1940. The market for Canadian wheat is limited almost entirely to Great Britain, and as a consequence there is little possibility of materially reducing the surplus during the war, except through drastic reduction of acreage.

Agricultural Production in the Prairie Provinces, 1939-42

Table 2 shows the trend of field crop production in the Prairie Provinces during the present war.

An examination of the statistics in Table 2 will reveal the direction of the shifts that are occurring in the production of field crops in the Prairie Provinces. The total acreage devoted to field crops increased between 1939 and 1940 and dropped by about five million acres in 1941. The principal factor in this decline was a reduction of over 6.5

TABLE 2. ACREAGE AND PRODUCTION OF PRINCIPAL FIELD CROPS IN THE PRAIRIE PROVINCES, 1939-42 *
(In thousands.)

Acresages	1939	1940	1941	1942 †
Field crops.	41,555	43,158	38,000	42,546
Wheat	25,813	27,750	21,140 ‡	20,653
Oats	8,227	7,818	8,137 ‡	9,606
Barley	3,607	3,622	4,735 ‡	6,414
Rye	1,014	943	861 ‡	1,240
Flaxseed	289	364	982 ‡	1,446
Potatoes	109	109	90	104
Turnips	12	11	12	11
Hay and clover	1,120	1,077	1,203	1,157
Alfalfa	204	243	417	555
Fodder corn.	94	88	94	83
Grain hay.	950	1,000	1,435	1,853
Sugar beets.	22	42	41	43
Production	1939	1940	1941 †	1942 †
Wheat (bu.)	494,000	513,800	296,000	565,000
Oats (bu.)	231,500	229,000	204,700	500,000
Barley (bu.)	81,000	83,000	98,000	241,000
Rye (bu.)	13,700	12,250	11,500	23,000
Flaxseed (bu.)	1,050	2,875	5,641	14,700
Potatoes (cwt.)	4,956	6,194	7,685	9,803
Turnips (cwt.)	1,081	881	1,253	1,298
Hay and clover (tons)	1,720	1,556	1,964	2,116 §
Alfalfa (tons)	396	479	865	1,293 §
Fodder corn (tons).	322	406	422	260 §
Grain hay (tons).	1,425	1,800	1,300	3,016
Sugar beets (tons).	262	431	389	481

* *Quarterly Bulletin of Agricultural Statistics* (January-March 1942).

† "Third Official Estimate," in Dominion Bureau of Statistics, Agricultural Branch, *Crop Reports* (1943), No. 26.

‡ *Monthly Review of the Wheat Situation*, 13:15 (January 27, 1943).

§ *Canadian Coarse Grains Quarterly Review* (February 12, 1943), p. 4.

million acres in wheat. Wheat acreage reached a record high of 27.7 million acres in 1940 and then fell to the lowest figure since 1925. In 1942 it declined by another half million acres. In spite of the reduced acreage, the largest crop in the history of the West was produced in 1942. This crop exceeded the bumper crop of 1928. In fact, all the war years, with the exception of 1941, were years of exceptionally large wheat yields. At the end of the crop year 1941-42 (July 31, 1942) the Canadian carryover was about 424 million bushels. The Canadian wheat crop yielded in 1942 about 593 million bushels, making a total supply of approximately 1017 million bushels. A liberal estimate might place the

quantities of Canadian wheat required during 1942-43 for human consumption, feed, seed, and export at 330-350 million bushels. Assuming a continuation of this rate of disappearance, at the end of the crop year 1942-43 there will be approximately two years' requirements still on hand.

The coarse grains, on the other hand, have shown a marked increase in acreage. The increase in the barley acreage is particularly marked. The increased demands for feed as a result of the growth in livestock production, together with a shortage of feed in Eastern Canada, stimulated increased production of feed grains in Western Canada. Flaxseed production has been stepped up, mainly in Saskatchewan, as a result of the increased requirements of the British Ministry of Supply for linseed oil, and fiber flax production is under way in response to the demands of the linen industry. The acreage devoted to flaxseed in the Prairie Provinces was 289,000 in 1939; in 1942 it was 1,446,000. Vegetable and root crops and fodder, except alfalfa, have shown either little change or a generally downward trend. The increase in sugar-beet production in 1940 was brought about by the establishment of a sugar plant in Manitoba.

Examination of the production figures adds little to what has been said after allowances are made for variations in rainfall and other physical factors from year to year. It should be noted, however, that in 1942 Western Canada produced about 740 million bushels of barley and oats, as compared with 565 million bushels of wheat.

The livestock population on prairie farms as of June first of each year from 1939 to 1942 is shown in Table 3. It will be noted that the number of hogs on farms is the only item that showed any significant change between 1939 and 1941. By 1942 the number of hogs had again shown substantial gains. This development is, of course, the consequence of the rise in hog prices and an almost unlimited market in the United Kingdom. By 1942 cattle and poultry had increased substantially over 1941.

The statistics of dairy production are not available beyond 1941, except for creamery butter and cheddar cheese. Creamery butter production increased from 85 million pounds in 1940 to 110 million pounds in 1942. Cheese production increased from 7.6 million pounds to 9.5 million pounds in the same period. The extension of the British market for eggs is reflected in a 12 per cent increase in egg production in 1941 as compared with 1939. Wool production increased from about 630,000 pounds in 1939 to 1,433,000 pounds in 1941.

The production of cereals in the Prairie Provinces constitutes a

TABLE 3 LIVESTOCK ON FARMS IN THE PRAIRIE PROVINCES JUNE 1, 1939-42
(In thousands.)

	1939 *	1940 *	1941 †	1942 ‡
Horses	1,774	1,795	1,751	1,787
Milk cows	1,285	1,270	1,456	1,179
Other cattle	2,009	2,118	1,808	2,507
Sheep	1,406	1,515	1,278	1,549
Hogs	1,774	2,661	3,155	4,126
Poultry	23,185	24,300	26,079	32,193

* *Quarterly Bulletin of Agricultural Statistics* (January-March 1941).

† Census of Canada (Eighth, 1941).

‡ Dominion Bureau of Statistics, *Livestock Survey* (June 1, 1942).

major part of the total Canadian production. The Prairie Provinces have 99 per cent of the Canadian acreage of spring wheat, about 90 per cent of the acreage of rye, and over 95 per cent of the acreage of flaxseed. In 1939, 64 per cent of the Canadian acreage in oats was in the Prairie Provinces, and in 1942, 70 per cent. Eighty-three per cent of the barley acreage was in the Prairie Provinces in 1939 and over 90 per cent in 1942. The increases in output during the war period have materially affected the relative volumes of production in the Prairie Provinces and the rest of Canada only for barley, oats, and hogs.

Western Canada accounts for a much smaller proportion of the Canadian production of livestock than of cereals. Of the Canadian totals of horses, cattle, sheep, and hogs, probably 40 to 50 per cent are produced on Western Canadian farms. The number of hogs on farms in the West increased from 40 per cent of the total in 1939 to nearly 60 per cent of the total in 1942.

Production trends in Western Canada in wartime have been dominated by attempts to reduce the enormous wheat surplus to manageable proportions, attempts to prevent drastic reductions in farm income, and the demands of the British Ministries of Food and Supply. The first objective was sought by means of Dominion Government payments to wheat farmers for diverting wheat acreage to summer fallow or coarse grains. Between 1940 and 1942 wheat acreage was reduced by 7 million acres; the areas devoted to oats, barley, and rye were increased by about 2 million, 3 million, and 250 thousand acres, respectively. Summer fallow was increased by 1.7 million acres² in the same period. This policy was supplemented by the action of the Canadian Wheat Board in limiting deliveries of wheat from the farms in 1941-42 and 1942-43. Farm income was supported by pegging the

* *Quarterly Bulletin of Agricultural Statistics* (April-June 1941, April-June 1942)

price of wheat at 70 cents for the 1940-41 crop and at 90 cents, basis No. 1 Northern, Fort William, for the 1942-43 crop. Minimum prices of 45 cents for oats and 60 cents for barley, basis Fort William, were established for the 1942-43 crop year. The price of flaxseed was fixed at \$2.25 per bushel.

This price policy with respect to coarse grains and flaxseed was intended to stimulate the production of vegetable oils and feeds for the increasing livestock production as well as to support the level of farm income. The level of farm income was also supported by substantial payments under the Prairie Farm Assistance Act (under emergency and crop-failure conditions) and the Prairie Farm Income payments. Production of hogs, cheese, eggs, flaxseed, and flax fiber has been affected particularly by the demands of the British market for these commodities. The factors influencing the production of beef cattle are rather different, in that the demands of the American market and the increased demands of Canadian consumers have been the dominant elements.^a

Agricultural Prices, 1939-42

The prices of manufactured goods rose steadily throughout 1941 and were stabilized at the level of the end of the year. Canadian farm prices rose more slowly until 1942 (Table 4). During the last year the

TABLE 4 INDICES OF THE PRICES OF AGRICULTURAL PRODUCTS AND INDICES OF THE PRICES OF MANUFACTURED GOODS AND CANADIAN FARM PRODUCTS, 1939-42 *
(1926 = 100.)

	1939	1940	1941	1942 (Aug.)
Manufactured goods	75	82	89	92
Canadian farm products	64	67	71	81
Field products	54	56	57	68
Barley	62	66	81	..
Oats	69	69	81	84
Rye	51	59	60	..
Wheat	43	52	50	59
All animal products	81	86	96	103
Livestock	87	95	110	127
Steers (Winnipeg)	103	116	137	..
Hogs, bacon (Winnipeg)	70	67	76	..

* Department of Labour (Ottawa), *Annual Report on Wholesale Prices* (1913-17) and Dominion Bureau of Statistics, Agricultural Branch, *Prices and Price Indexes* (1918-40) *Ibid.* (Monthly Supplements, 1923-40.)

^a Actually the beef cattle situation in Canada has been complicated by the necessity of attempting to maintain the ceiling on beef prices and at the same time avoid a shortage of beef

spread between the prices of manufactured goods and Canadian farm products was reduced considerably, and relative farm purchasing power was thereby improved. It is evident that the improvement in farm prices was influenced more by the rise in the prices of animal products than by the changes in the prices of field products. The failure of wheat prices to rise was the principal factor in keeping the general index of farm prices down. Wheat prices have risen recently with the higher pegged price for the 1942-43 crop. Cattle prices rose slowly and in June 1942 reached the highest point since 1940. They subsequently declined sharply. In the case of livestock, especially hogs and cattle, demand rose considerably and shortages threatened or actually developed. Increased demands for animal products and livestock were reflected in rising prices of coarse grains. The large surplus of wheat and the shutting off of Continental European markets held down the price of that product until the government intervened to peg the price at a higher level.

Farm Income in the Prairie Provinces

The shifts in farm prices and production are reflected in changes in the relative importance of various sources of farm income. Table 5

TABLE 5 CASH INCOME FROM THE SALE OF FARM PRODUCTS IN THE PRAIRIE PROVINCES, 1939, 1940, 1941, AND 1942 *
(In thousands of dollars.)

	1939	1940	1941	1942
Grains, seed, and hay	231,326	201,084	200,864	207,131
Wheat	213,722	182,665	168,099	138,128
Oats	6,583	7,598	10,378	20,169
Barley	6,794	5,447	10,730	20,467
Rye	1,990	1,435	2,695	1,859
Flax	1,992	2,368	5,758	21,825
Vegetables	821	1,172	1,929	988
Sugar beets	1,945	2,324	2,971	4,185
Livestock	63,591	96,005	126,447	177,779
Cattle	34,651	42,007	52,837	68,575
Hogs	27,283	43,244	63,098	92,196
Dairy products	21,639	23,424	36,492	47,960
Eggs, wool, honey	5,899	7,494	9,462	16,012
Miscellaneous (not including forest products and fur farming)	7,779	3,918	4,553	5,500
Total cash income (all sources)	<u>335,000</u>	<u>339,398</u>	<u>392,074</u>	<u>462,122</u>

* Dominion Bureau of Statistics. *Cash Income from the Sale of Farm Products* (February 19, 1943).

shows the sources of farm income for the years 1939, 1940, 1941, and 1942.

Table 5 shows the striking changes that have occurred in the relative importance of various agricultural products as sources of cash income on the farm. If the cash income derived from these products in 1942 is compared with the income derived from the same sources in 1939, the following changes will be observed. In 1939 the sale of cereals yielded \$231,000,000, or 68 per cent of total income. In 1942 this source accounted for only \$207,000,000, or 44 per cent of the total. It is clear from the table that this decline is accounted for mainly by the reduction in income derived from the sale of wheat: \$214,000,000, or 63 per cent of the total, in 1939, as compared with \$138,000,000, or 30 per cent, in 1942. The cash income derived from livestock was \$66,000,000 in 1939 and \$178,000,000 in 1942. This income represents an increase from 21 per cent to 38 per cent of the total. This increase in the importance of livestock was accounted for much more by an improvement in the sale of hogs than of cattle. Cash income derived from cattle was doubled, while that derived from hogs was more than trebled. In 1942 hogs provided 20 per cent of the cash income, whereas in 1939 they accounted for only 8 per cent. Similar shifts, though quantitatively smaller, have occurred in dairy products as a source of cash income. In 1939 these commodities provided 6 per cent. By 1942 this proportion had increased to 10 per cent.

These shifts are important. It is a commonplace that in the past Western farmers have depended very largely on wheat as the main source of their income. The farmers of Saskatchewan have depended on wheat for as much as 70–75 per cent of their incomes; in the semi-arid regions the proportion has probably been as high as 90 per cent. While the prairie economy as a whole has become less specialized in wheat than formerly, it must be noted that even today some parts of the Prairie Provinces, notably the semiarid regions, are preponderantly dependent on wheat.

While the gross farm income rose in 1941, net farm income did not improve proportionately, because of increases in the cost of labor and feed. It appears, nevertheless, that there was some improvement in the net position of Western agriculture in 1941. Mortgage companies and implement dealers report repayment of debts and purchase of machinery. Sales of farm implements in Canada were about 40 per cent higher in 1940 and 1941 than in the previous two years.⁴

⁴ The Bank of Nova Scotia, *Monthly Review* (September–October 1942).

Population Changes, 1936-41

From 1936 to 1941 the population of the Prairie Provinces as a whole declined by approximately 17,000 (Table 6). The decline in the Province of Saskatchewan amounted to 43,800, or 4.7 per cent. The population of each of the other provinces increased. This decline in the population of the region is the first to occur in an intercensal period.

The significance of this change in trend is brought out more completely in Table 7. During the five-year intercensal period 1931-36 the

TABLE 6. POPULATION OF THE PRAIRIE PROVINCES, 1936 AND 1941 *

	1936	1941	Change	
			Amount	Per Cent
Manitoba	711,216	722,447	+11,231	+1.5
Saskatchewan ..	931,547	887,747	-43,800	-4.7
Alberta	772,782	788,398	+15,616	+2.0
Prairie Provinces....	2,415,545	2,398,592	-16,953	-0.7

* Dominion Bureau of Statistics, *The Prairie Provinces in Their Relation to the National Economy of Canada* (1941), p. 3. and Census of Canada (Eighth, 1941).

TABLE 7. NET IMMIGRATION INTO OR EMIGRATION FROM THE PRAIRIE PROVINCES,
1921-31, 1931-36, 1936-41 *

	1921-31	1931-36	1936-41
Total increase in population.	397,447	61,362	-16,953
Natural increase.....	356,729	165,442	150,779 †
Net immigration (+) or emigration (-).	+40,718	-104,080	-167,732

* W. J. Waines, *Prairie Population Possibilities; A Study Prepared for the Royal Commission of Dominion-Provincial Relations* (1939), p. 44, and Census of Canada (Eighth, 1941). Additional information was obtained through correspondence with the Dominion Bureau of Statistics

† Estimated.

Prairie Provinces lost 63 per cent of their natural increase, and during the five-year period 1936-41 the whole of the natural increase was lost and some 17,000 additional people left the Prairie Provinces. This net emigration from the Prairie Provinces indicates that during the last decade the opportunities for making a living have been less favorable in the Prairie Provinces than elsewhere. In spite of the greatly reduced natural increase, the people of the Prairie Provinces have sought employment elsewhere in increasing numbers. These facts suggest that, given the techniques and markets of the last decade, the notion that

the Prairie Provinces are still a great unexploited agricultural area is a myth.

During the war period shifts in demand have been such that the West has become relatively more dependent on livestock and coarse grains for its income than formerly. This change is a war phenomenon and is likely to continue for the duration of the war. However, the fact of these shifts under the influence of war does have an important bearing on the problem of postwar adjustment. What are the prospects for retaining the British market for hogs when European agriculture is rehabilitated? Is the market for live cattle likely to remain at its present level? What are the prospects for selling the produce of even 21 million acres of land devoted to wheat? These are some of the questions requiring answers. The answers to these questions, moreover, will determine the field within which internal adjustments, i.e., internal to Canada and the Prairie Provinces, will have to be attempted.

II

AGRICULTURAL READJUSTMENTS IN THE PRAIRIE PROVINCES

Before we can attempt to assess the quantitative and qualitative aspects of internal agricultural adjustment in the Prairie Provinces in the postwar period, it is necessary to attempt an estimate of the probable markets, domestic and foreign, for the principal agricultural products of the region. Such an estimate must be based on some assumptions concerning the probable attitude of importers of these products in the postwar world and the probable competition from other than Canadian sources. In the first report published under the general title *The Midcontinent and the Peace*, a proposal was made for the reorganization of European agriculture. If implemented it would assure expanding markets for the agricultural produce of this continent, and it seems clear that the interests of both European and American agriculture would be provided for most effectively by such action. In this section it is proposed to show in quantitative terms the disastrous consequences of not attempting the reorganization of European agriculture along the suggested lines and to demonstrate that insofar as it is found impossible to obtain markets for the volume of production that Western Canada has been accustomed to, internal adjustments will have to be made if agriculture is to be established on a satisfactory basis. In short, after the possibility of solving the problem by international action has been explored, there may still be a residue of internal problems for which solutions must be sought. The purpose of this section is to attempt to separate from the general question these remaining problems and to obtain some notion of their quantitative importance. It will then be in order to study the ways in which internal adjustments offering some hope of establishing agriculture on a reasonably sound basis might be made. It should hardly be necessary to issue the warning that it is not suggested that complete and final solutions of these problems can be offered.

The Problem of Markets

It is hazardous to attempt to estimate the size of the external markets for agricultural products when the actions of foreign governments, and of our own, are unknown for any considerable period of

time in the future. However, if the problem is stated in terms of the size of the external market that is necessary to absorb a given volume of production, the magnitude of the problem can be approximately measured, and it can be shown what markets are necessary in order to make changes in the volume of output unimportant. Then if these markets are not forthcoming the magnitude of the internal readjustment can be estimated.

It is a commonplace that Canada has always depended on external markets to take a large proportion of certain of her agricultural products. In this section an attempt is made to determine the relative dependence of the producers of the more important Western agricultural products upon domestic and external markets.

Wheat

The domestic uses of wheat consist of millings for human consumption, feed for livestock and poultry, and seed retained for the succeeding year. The amounts used for each of these purposes each year are published by the Dominion Bureau of Statistics, Agricultural Branch, in the *Report on the Grain Trade of Canada*, for the year concerned. From these data are obtained the figures for total domestic consumption in certain years given in Table 8. By comparing these with the volume of wheat produced plus the volume exported in the same years (also shown in Table 8), an approximate notion of the relative importance of the foreign market for wheat can be obtained. Included for consideration are the carryover and total supply figures for the same periods.

Domestic consumption of wheat has been steadily growing. The fluctuations from year to year, which are not great, are due mainly to variations in the amount of wheat fed to livestock and poultry. The amount fed tends to vary with the supplies of wheat and the numbers of livestock. The present increase in livestock, together with an abundance of nonsalable wheat on farms (much of it of low grade), will probably increase the consumption of wheat for this purpose. These factors have been taken into account in making the estimates for recent years. Domestic consumption is relatively stable from year to year and shows an annual increase of about 800,000 bushels. Seed requirements depend on acreage seeded. It has been assumed that the present acreage (about 21 million acres) will again be seeded in 1943.⁵

Exports of wheat and wheat flour show considerable annual variation up to the war period. Since the crop year 1939-40 the fluctuations

⁵ It now appears that for 1943 the wheat acreage may be as low as 17 million acres.

TABLE 8 DOMESTIC CONSUMPTION, EXPORT, PRODUCTION, CARRYOVER,
AND TOTAL SUPPLIES OF WHEAT IN CANADA *
(In millions of bushels.)

Crop Year	Domestic Consumption †	Export (Wheat and Flour)	Production	Carryover from Pre- vious Crop	Total Supplies	Stocks at End of Crop Year
1927-29 (av.)	86 ‡	345	485	53	538	...
1932-35 (av) ..	97	211	331	168	499	...
1935-36	100	254	282	214	496	127
1936-37	94	195	219	127	347	37
1937-38	94	93	180	37	217	25
1938-39	114	160	360	25	385	103
1939-40	123	193	521	103	624	300
1940-41	116 §	231	540	300	841	480
1941-42	117 §	230 §	312	480	792	424
1942-43	120 §	230 §	393	424	1,017	660 §

* *Report on the Grain Trade of Canada*, and Bank of Canada. *Statistical Summary* (August-September 1942).

† There are some omissions, such as "fed on farms," "not merchantable," etc

‡ Exclusive of feed

§ Estimated.

have been very small," as would be expected in view of the relatively stable demand in the British market and the fact that the British Government is allocating its purchases in certain proportions to the principal sources of supply. Aside from the British market the only remaining outlets for Canadian wheat and flour are the United States, South America (small), and Eire. Small amounts may still go to Africa. Russian requirements are unknown and may be large.

Production, of course, shows extremely wide variations due to fluctuations both in acreage planted and in yield. In 1942 Canada produced 52 million bushels more wheat than in 1940; acreage devoted to wheat, however, was 7 millions less in 1942 than in 1940.

With high yields and a relatively stable market, Canada's total supplies have mounted steadily year by year since the outbreak of war until at the end of the current crop year (August 31, 1943) it appeared that there would be about two years' requirements (domestic and external) on hand. Two successive years with yields equal to the 1937 crop (180 million bushels) would reduce the carryover by about 50 per cent of the present level. It appears, then, that with present wheat acreage and average yields Canada is likely to have a large surplus at

* The actual export figures are withheld, and those used in this section for 1941-42 and 1942-43 are estimated. Hence, this conclusion should be accepted subject to some modification if actual exports should be different.

the end of the war. A program of postwar rehabilitation that involved feeding large numbers of starving people would probably use most of this surplus in two years or so.

If the proposal for the reorganization of European agriculture were accepted, it would be possible to state the position of Western Canadian agriculture in unambiguous terms, because postwar trends could be predicted with reasonable accuracy. Progressively larger markets could be anticipated. But apart from the acceptance of this suggestion it is difficult to predict trends in the postwar world because of the large number of unpredictable elements. However, it may be instructive to consider a hypothetical situation. Suppose wheat acreage in Canada to remain at its present level (21 million acres) and assume, also, that the average wheat yield during the period 1908 to 1940 (15.6 bushels per acre) will prevail in the future. In this case the average annual production of wheat would be 328 million bushels.⁷ The lowest yield recorded was 7 bushels per acre in 1937 and the highest was 27.5 bushels in 1942. Thus the range of production might be from a low of 150 million bushels to a high of 565 million bushels. These might be considered the outside limits of fluctuation, given the conditions cited above. Assuming domestic consumption of 120 million bushels a year, Canada would have to find export markets for an average amount of 200 million bushels per year, with a possible variation from 30 million bushels in poor years to 445 million bushels in good years. It would appear, therefore, that the markets which Canada was able to hold during the war would, if continued in the postwar period, be sufficient to absorb Canada's average surplus over domestic consumption.

However, there are certain adjustments that should be noted. In the first place, the export figures for 1941-42 and 1942-43 are probably too high. These figures are estimated from incomplete published materials, but in view of the contraction of the world market area and the position in the British market they seem too high. Moreover, Canada now has a larger proportion of the British market than she can hope to have after the war. In the prewar years Canada's share of the British market was about 40 per cent of the total. During the war her share in that market is considerably above 40 per cent. Failure to reorganize European agriculture in order to provide outlets for Canadian wheat would mean that to retain this high proportion of the British market special arrangements would have to be made with Great Britain.

⁷ The average annual production, 1908-40, was 310 million bushels.

The second uncertain factor in the situation is the extent of the postwar market on the Continent of Europe. It was there that the greatest reduction of imports occurred in the 1930's. Table 9 suggests the changes that took place.

TABLE 9. WORLD NET IMPORTS OF WHEAT AND WHEAT FLOUR *
(In millions of bushels.)

	United Kingdom and Irish Free State	Continental Europe	Non-European Countries	Total
1909-14	217.7	326.7	98.0	643.2
1922-27	224.4	373.1	128.5	740.2
1927-32	230.3	373.9	159.4	780.7
1932-37	225.8	170.8	120.8	548.0

* *Report of the Royal Grain Inquiry Commission* (Ottawa: 1938), p. 121.

The Continental European market has disappeared for the duration of the war. But it is clear that a restoration of the level existing prior to the war would be of substantial assistance, given the assumptions made above. In the prewar years Canada's share in this market was about 30 per cent. A restoration of this market to the pre-1932 position would greatly assist with present wheat acreage in Canada. Of course, developments of this sort depend upon the trend of wheat policy in this area.

It is assumed that the rest of the outlets for Canadian wheat will remain relatively stable, though naturally Canada could expect to share in any improvement.

A third factor which might require adjustment is the volume of domestic consumption. As population grows, human consumption of wheat will presumably also grow. The assumption of a fixed acreage means that there will be no additional outlet for seed. The amount of wheat fed to livestock and poultry will be maintained only if, after the war, the output of these products stays at a high level and as long as coarse grains are not a cheaper alternative. The outlook for livestock depends on other considerations, which will be discussed below.

Coarse Grains and Animal Products

The situation with regard to oats and barley can be described briefly. Tables 10 and 11 give production, export, and domestic disappearance.

The coarse grains are used principally for livestock feed. The in-

TABLE 10 PRODUCTION, EXPORT, DOMESTIC DISAPPEARANCE, AND STOCKS OF OATS *
(In millions of bushels)

Crop Year	Domestic Disappear- ance	Exports (Includ- ing Oats Products)	Produc- tion	Carryover from Pre- vious Year	Total Supplies	Stocks at End of Year
1927-29 (av)	.	13	425	32	457	.
1932-35 (av.)	.	15	337	42	379	..
1935-36 ..	306	15	394	27	421	10
1936-37 ..	285	9	272	40	312	18
1937-38	257	9	268	18	286	20
1938-39	329	13	371	20	391	49
1939-40	.	24	384	49	433	47
1940-41	.	.	380	47	427	42
1941-42	.	..	306	42	348	29
1942-43 ..	..	.	652	29	681	..

* Report on the Grain Trade of Canada

TABLE 11. PRODUCTION, EXPORT, DOMESTIC DISAPPEARANCE, AND STOCKS OF BARLEY *
(In millions of bushels)

Crop Year	Domestic Disap- pearance	Exports	Produc- tion	Carryover from Pre- vious Year	Total Supplies	Stocks at End of Year
1927-29 (av)	..	35	111	6	117	.
1932-35 (av)	..	9	69	15	84	..
1935-36 ..	72	8	84	6	90	10
1936-37 ..	60	18	72	10	82	4
1937-38	65	15	88	4	87	7
1938-39	81	15	102	7	109	13
1939-40	92	11	103	13	116	13
1940-41	103	3	104	13	117	11
1941-42	..	.	110	11	121	11
1942-43	..	..	259	11	270	.

* Report on the Grain Trade of Canada

creased production of these cereals during the war is largely the result of two factors: the increase in the production of livestock, especially hogs, and of dairy products, and the wheat acreage reduction payments of the Dominion Government, which had the effect of diverting acreage from wheat to coarse grains. The demand for oats products for human consumption shows little annual variation. The export demand for oats is a negligible percentage of total supplies; it has never exceeded 5 per cent in recent years. Barley exports run somewhat higher—10 to 20 per cent of total supplies. Generally speaking, the

United Kingdom has been the principal importer of oats and barley from Canada, though in certain years the United States and Western Europe have taken a considerable proportion of Canada's exports of these products. At the present time only limited amounts of feed are exported. The only markets left to Canada are the United States and the United Kingdom. A more important reason for the decline in exports is the fact that it has been found necessary to restrict and in some cases prohibit the export of feed in order to conserve supplies for use in the feeding of Canadian livestock. Export is allowed only on permit from the Agricultural Supplies Board.

The postwar demand for Canadian-produced coarse grains will depend on three principal factors: (1) the external demand for animal products from Canada, (2) the domestic demand for animal products, and (3) livestock production abroad as it affects the demand for Canadian coarse grains as feed. If the present or a higher level of the Canadian national income is maintained after the war the internal demand for animal products should be much larger than in prewar years. At present there is a considerable voluntary limitation of domestic consumption of these products, but given present purchasing power there would be a larger domestic consumption under normal conditions. The development of improved dietary habits may also add to this demand. The extent of the external demand for animal products from Canada will depend on the standard of living established abroad, especially in Europe, and the extent to which Canada can compete with European producers through improvement of quality and handling facilities. The quality of Canadian bacon has already been greatly improved, and the techniques of refrigeration and shipping have been modified to reduce costs. If Europe should turn more to the production of animal products and less to wheat, the demand for coarse grains for feed should be considerably improved. However, with such increased production abroad competition will become keener in the foreign market. Whether Canada will export feed as such or concentrated in the form of animal products will depend mainly on the relative prices of these products and feed.

Before the war the United States was the principal external market for Canadian cattle and hogs, though the United Kingdom took considerable numbers. Animal products, however, such as beef and pork, went mainly to the United Kingdom. The closing of the Continent of Europe turned the British demand to North America. During the years immediately preceding the war Canada's largest export of bacon to Great Britain in any one year was 193 million pounds. During

1941-42 the contract between Canada and Great Britain called for delivery of 600 million pounds. In the 1942-43 contract the amount was increased to 700 million pounds. As already indicated, the United States is the most important market for Canadian cattle. The outlook for this industry in the postwar period will depend largely on the demand in that market and the attitude of that country with respect to the importation of Canadian cattle.

III

GENERAL CONCLUSIONS

The agricultural problems of the prairie region are, in the main, the product of environment, dependence on world markets and prices, and the peculiar circumstances responsible for the trends of development. Development in each successive period received its impetus from forces initiated outside Canada and was directed and limited by the circumstances of environment. Geography decreed a highly specialized agricultural economy. Abundance of land and limited supplies of labor and capital were responsible for the specialization of the region in the production of food products under an extensive type of agricultural organization. This type of development was possible in a world wherein the free exchange of goods and the free movement of people and capital from country to country were permitted.

The industrialization of Western Europe and the rapidly growing European population meant a growing demand for food and raw materials. New techniques in transportation and agriculture lowered the costs of placing Western Canadian wheat on European markets eager to obtain increased supplies of food for growing urban populations. These factors, together with business recovery and rising prices after 1896, created such a conjunction of favorable circumstances that the prairie region achieved a *rate* of growth unequaled in any other part of the world.

By 1914 the rate of expansion was declining. The war, however, gave a new stimulus to development because European demands for agricultural products became centered on the North American Continent, and rising prices stimulated further expansion of wheat acreage in Western Canada. The consequences of the war expansion did not fully appear until the late twenties. By that time the European countries were engaged in programs of agricultural reconstruction and were apparently intent on achieving the largest possible measure of self-sufficiency in agricultural produce. Their policies involved the restriction, or prohibition, of competition from overseas sources of supply. As a consequence, the international economic system upon which the wheat economy had been built disappeared, and the problem of wheat surpluses emerged. There arose a double system of subsidies—

subsidies to foster the high-cost production of agricultural commodities in those countries which could not compete in the open market with low-cost producers, and subsidies in the low-cost countries to sustain the incomes of producers who found the markets closed for their surpluses. How costly this policy was, in terms of both money and human welfare, is pointed out in the preliminary report, *The Mid-continent and the Peace: The Interests of Western Canada and Central Northwest United States in the Peace Settlements*.

The changes that have occurred in Western agriculture have been considered in some detail, and it will be recalled that again, under the impetus of war, the prairie economy is experiencing drastic changes in its production pattern. Briefly, wheat acreage has been greatly reduced and the production of coarse grains and livestock has increased. What sort of adjustments must be made when this war comes to an end? Obviously the answer to this question depends partly on the answer to a second question: What economic terms will be embodied in the peace settlement? A concrete proposal was made in the preliminary report of this study which would meet this problem. It is impossible to overemphasize the importance of a satisfactory international arrangement in order to facilitate the postwar readjustment of agriculture in both Western Canada and the Central Northwest United States. The character of postwar readjustments will depend also on such factors as the level of the national income, changes in the dietary habits of the people, the rate of growth of populations, the growth of industrialization, and the discovery of industrial uses for agricultural products. It is proposed to discuss briefly some of these aspects of the problem in this section.

Postwar Commercial Policy

The economic terms of the postwar settlement are of vital significance for Western agriculture. For our present purposes we may limit the discussion to the following general cases: (1) the restoration of a large measure of freedom of trade, (2) the retention of strong nationalistic and restrictionist policies, and (3) closer economic collaboration among the members of the British Commonwealth of Nations with restrictionist policies between this group of nations and the rest of the world.

The history of agricultural crises in the interwar period is instructive as to the sort of economic policies we would do well to avoid in the future. J. B. Condliffe, in a recent article, has this to say of the interwar period:

"There can be no doubt that a continuing agricultural crisis, against which national governments strove desperately to protect their farming communities, was one of the root causes of international disequilibrium in the period between the wars. The accumulating disequilibrium is clearly demonstrated by the fact that stocks of agricultural commodities rose from an index number of 100 in 1923-25, to 264 in 1932, while in the same period the index of agricultural prices fell from 100 to 24. This mounting index of agricultural surpluses and declining index of agricultural prices, even in the years of apparent prosperity from 1924 to 1929, is eloquent evidence of underlying structural disequilibria in the world's agricultural production and consumption. They indicate also that the measures of agricultural protection and relief, undertaken by almost every government, so far from solving, accentuated the underlying disequilibrium."³

Competent authorities would agree with Mr. Condliffe that restrictionist policies adopted in the interwar period were largely responsible for the accumulation of large surpluses of most agricultural commodities in exporting countries, while at the same time uneconomic incentives maintained high-cost production in other countries. If the same difficulties are to be avoided at the end of this war there must be a radical readjustment of the commercial policies of the principal trading nations of the world. This fact was recognized by the participants in the Washington Wheat Meeting during 1941-42. Article I of the Draft Convention reads in part as follows:

"The contracting Governments agree that an essential element of a solution of the wheat problem is that consumers should have the opportunity and means of increasing their purchases of wheat from areas which are equipped to produce it economically. They agree that such opportunity and means depend not only on the lowering of barriers to the importation of wheat but also on making available to wheat importing countries increased outlets for the exportation of goods which they in turn are equipped to produce economically. They agree that this requires the adoption and pursuit of national and international policies aimed at a fuller and more efficient use among nations of human and natural resources and thereby a world-wide expansion of purchasing power."

There is no reason to doubt that the restoration of a large measure of free trade would permit Canadian wheat to resume its place in the world market. Such a policy would in large measure restore the pos-

³ J. B. Condliffe, "The Disposal of Agricultural Surpluses," *Journal of Farm Economics*, 24:434 (May 1942).

sibility of international specialization, with Western Europe producing a smaller proportion of the world supply and the overseas exporters producing a larger proportion. The advantages of such territorial specialization are set forth in the preliminary report.⁹

It is probable, however, that such policies would involve some contraction in the output of coarse grains and livestock, especially hogs. Possibly Canadian producers of dairy products would also find keener competition from European producers. A contraction in European wheat production would probably mean some expansion in the output of animal products on the Continent. Whether or not Europe with a high standard of living and with improved dietary habits can produce sufficient quantities of these products to meet her own requirements cannot be predicted. This matter warrants further study. However, the point which requires emphasis is that freedom of trade will probably require some readjustment of Western Canadian agricultural production in the postwar world and that this readjustment implies expansion in some areas of production and contraction in others.

It has been suggested that with its present wheat acreage Canada will have to find export markets for some 200 million bushels per year. During the period 1932-37 Canada's exports of wheat averaged about 215 million bushels per year. It should be noted that this was the period of strongly restrictionist policies. During the period 1922-27 Canada exported about 286 million bushels a year and in the period 1927-32 about 278 million bushels a year. On the basis of the average yield for the period 1908 to 1940, the 1940 acreage (27.7 million acres) would produce an average of about 430 million bushels a year. Deducting 120 million bushels for domestic consumption leaves 310 million bushels to be disposed of in export markets. It seems to be a reasonably safe guess, therefore, that on the average an acreage as large as that of 1940 is too high for long-run stability in the wheat industry.

This argument does not take into account the instability arising out of wide fluctuations in yield due to variations in precipitation. Such considerations are important, however, and imply that an expansion of wheat acreage from the present level should be a controlled expansion, so that the worst areas, in terms of climate and soils, will not in future be utilized for the production of wheat. Thus, given the most optimistic view as to the future of export markets, there remain internal adjustments whose solution requires the combined knowledge of the soils expert, the agricultural expert, and the economist.

⁹ *The Midcontinent and the Peace: The Interests of Western Canada and Central Northwest United States in the Peace Settlements*, Section III, pp. 22-23

The analysis in the earlier part of this section suggests that the continuation and strengthening of nationalistic economic policies mean disaster for Western agriculture. If Great Britain were to implement such a policy with respect to Canadian produce it is obvious what the consequences would be. The extent to which Great Britain can become self-sufficient in food is, of course, a debatable point, but any move in that direction would reduce our one remaining important market for wheat, livestock products, and dairy products. In such an event the whole burden of adjustment would fall upon the Canadian economy, with repercussions which would affect every part of it.

An economic bloc composed of the members of the British Commonwealth of Nations which gave the Dominions free access to the British market for their agricultural products would exert a less severe strain upon Canadian agriculture. It is true that Canadian wheat would again face competition from Australia, but there would be some compensation in the fact that Canadian livestock products, and probably to some extent dairy products, would continue to find their way to that market in considerable volume.

With all these considerations in mind, it can be said that Western Canada's hope for stability and modest development in the field of agriculture rests on a postwar settlement that will allow specialization in the production of those commodities for which each region is best suited. This purpose can be achieved only by substantial tariff reductions as part of the program of postwar adjustment.

The Problem of Mass Unemployment

For many reasons the solution of the problem of mass unemployment is the most vital single aspect of postwar reconstruction. It can be argued that the restoration of an economic system based on the free exchange of goods and all that that implies will materially contribute to the solution of this problem. The point with which we are concerned at the moment, however, is the relation between the solution of this problem and the solution of the difficulties of agriculture. If ways and means, such as the recommended reorganization of the Canadian-American automobile industry,¹⁰ are found to reduce unemployment to a low level and maintain the national income of Canada and other countries at a high level, the domestic purchasing power (as well as the purchasing power in other countries) will contribute very materially to the elimination of agricultural surpluses.

¹⁰ *Ibid.*, Section IV, pp 34-39

It should not be concluded, however, that the benefits will be distributed equally over all branches of agricultural production. As the standard of living of a people rises above the subsistence level, there is a tendency for a larger proportion of the increase to be represented by consumption of products other than food. Of that portion of the increase in purchasing power which is spent on food, the greater part will be spent on animal products, dairy products, vegetables, and fruits, and the smaller part on cereal products. It would follow, then, that improvements in the standard of living in Canada at least, and probably in Western Europe also, will be reflected in greater demands for agricultural products other than wheat, and, because of the tendency to spend a smaller proportion of an increasing income on food, too much emphasis must not be placed on this factor as a means of stimulating the consumption of agricultural products.

Changes in Dietary Habits

The conclusion in the preceding paragraph may be modified by another consideration. In recent years it has been recognized that large numbers of people are improperly nourished. This lack of proper nourishment is not simply a matter of insufficient quantities of food but, for many people, a matter of insufficient quantities of the right kinds of food. Studies made by the Dominion Bureau of Statistics, the Dominion Department of Agriculture, and the Canadian Council on Nutrition indicate "that diets are very frequently inadequate in important food elements, the lack of which, in extreme cases, is associated with deficiency diseases, in less extreme cases with subnormal health and vitality. . . . The main sources of the food elements widely lacking in the diets of Canadians are the 'protective' foods, including dairy products, eggs, fruits, and vegetables."¹¹ Sir John Orr, a British nutrition expert, estimated that "raising the food consumption of the whole population [of Great Britain] to the level of the top 10 per cent, who buy nutritionally satisfactory diets, would involve an increase in the demand for milk of 80 per cent, for butter of 41 per cent, for eggs of 55 per cent, for meat of 29 per cent, for fruit 124 per cent, and for vegetables 87 per cent."¹² There is apparently great scope for expansion in the consumption of the "protective foods," given adequate incomes to buy these commodities. But an educational program respecting the principles of human nutrition is also necessary to assure

¹¹ Andrew Stewart, *More Farmers for Western Canada* (Toronto: The Ryerson Press), p. 24.

¹² John Boyd Orr, *Food, Health and Income* (London: Macmillan, 1936)

reasonable standards of living. Many of the "protective foods" must be produced for local markets and, consequently, a marked increase in the demand for them in Canada will be to the direct advantage of Canadian producers.

Industrial Expansion

It is not proposed to discuss the possibilities of further industrial development in Canada in this section, but rather to point out that increases in the urban-industrial population of Canada will further increase the demand for agricultural products. It may be also that future industrial development will utilize certain agricultural products as raw materials (e.g., for plastics and synthetic rubber).

Population Trends

A final point which should be mentioned is that reduction in birth rates in recent years has been so great that the populations of the countries of Western Europe are on the eve of a decline. For example, it is estimated that the population of Great Britain will begin to decline during the decade 1951-61. Unless there is an improvement in birth rates, this decline will assume large proportions within two or three decades and will act as a depressing influence on Canadian agriculture.

IV

INTERNAL ADJUSTMENTS

It was suggested above that, regardless of the terms of the peace settlement, a residue of internal problems of adjustment is to be expected. These internal problems¹³ arise mainly out of the peculiar geographical characteristics of the area. In recent years a great deal of information about the characteristics of various parts of the agricultural areas in the Prairie Provinces has been assembled through soil surveys and land utilization studies. The universities, the Canadian Department of Agriculture, and the Prairie Farm Rehabilitation Administration have collected information that should be thoroughly studied and used in planning land use in the Prairie Provinces in the future.

In general terms these studies have informed us fairly accurately of the best uses to which these lands can be put. The light brown soil zone coincides closely with the worst of the drought area of Western Canada. A recent study of a portion of the Saskatchewan sections of this soil zone indicates that almost 60 per cent of the area is submarginal or marginal for wheat. While much of the land in this zone has been used for the production of wheat, the experience of the drought period and the evidence of land utilization studies both prove conclusively that yields in much of this area are too precarious to warrant an agricultural organization based on wheat. Great parts of the area are best suited to grazing. The dark brown soil zone, though still in the semiarid region, is the specialized wheat-producing area of the West. It is less subject to drought conditions than the regions with light brown soils, and its soils and topography are good for the production of cereals, especially wheat. There are few alternative uses to which the land may be put. The black soil zone, in terms of climate, soils, and topography, is well suited to cereals, livestock, and dairy products. In other words, there are alternative uses for the land if markets for alternative products can be found. The gray, wooded soils of the North are not good for cereals but are excellent for fodder, livestock, and dairy produce. The logic of the situation appears to call for fur-

¹³ "Internal" in the sense that remedies must be found through national and local policy rather than through international policy.

ther abandonment of wheat acreage in the submarginal arid and semi-arid areas (in favor of ranching), the extension of mixed farming in the dark and gray soils, which may involve reduction in wheat acreage, and the specialization of wheat production in the best lands of the brown soil zones, where it can be pursued to best advantage. This policy of adjustment in production implies a deliberate differentiation in treatment between the farmers of the semiarid region and those of the subhumid region. Such a program presents political and administrative difficulties and implies the possession of detailed information concerning the productive capacities of different areas. A good deal of this information is available through soil surveys, land utilization studies, and the extensive experience of the Prairie Farm Rehabilitation Administration. The principal limiting factor in such a program may be the existence of suitable markets, and the outlook here depends mainly on other aspects of policy already considered.

Even if the adjustments suggested above are made, it will still be true that there will be great variations in crop yield in the semiarid regions. This problem must be attacked if agricultural income is to be stabilized. Probably reserve stocks of wheat and/or crop insurance, together with a more flexible financial instrument than the mortgage, are the best approaches to this problem. Variability in income must be counted on unless some such remedies are found.